

REMARKS/ARGUMENTS

1. In paragraph 6 of the Office action, the Examiner rejected claims 1-4, 7-18, 21-31, 34, 35, and 39-44 under 35 U.S.C. 102(b) as being anticipated by Mena, but, in paragraph 7 of the Office action, the Examiner indicated that claims 5, 19, 32, 36, and 45 contain allowable subject matter.

In the exemplary embodiments described in the subject patent application, an assembly includes a latching structure having a first undercut feature and a door includes a latch member having a second undercut feature capable of being engaged by the first undercut feature of the latching structure. The undercut features are described specifically at page 8, lines 2-4 and related passages.

When the door is in a closed position, the first and second undercut features are engaged so that the door is latched to the assembly. The second undercut feature is required to move beyond the first undercut feature in order to open and close the door. A force is applied to maintain engagement of the first undercut feature of the assembly with the second undercut feature of the door to keep the door latched (e.g., to prevent movement of the second undercut feature of the door relative to the first undercut feature of the assembly).

The following is a reproduction of FIG. 2 from the subject patent application:

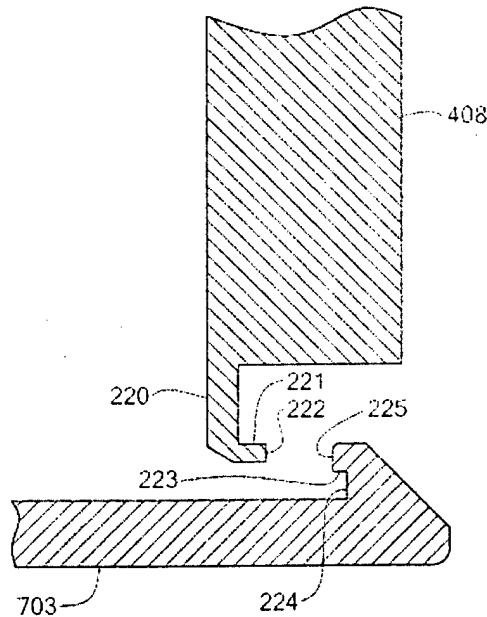
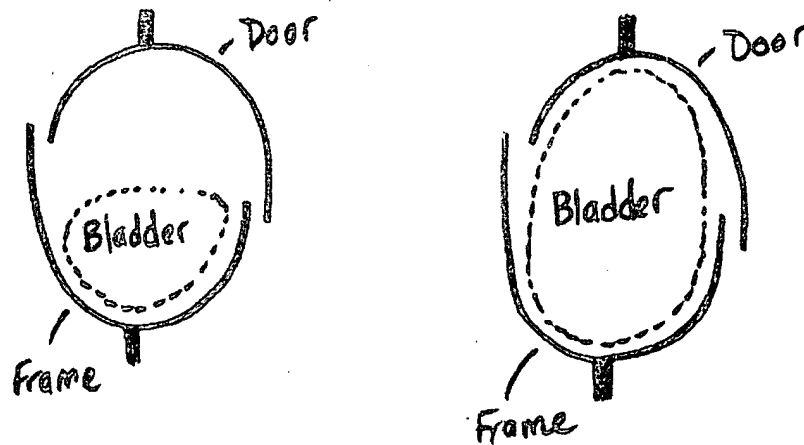


FIG. 2

In the exemplary embodiment shown in FIG. 2, the assembly 408 includes a latching structure 220 having an undercut feature forming surfaces 221 and 222. A door includes the latch member 703, which has an undercut feature forming surfaces 223 and 225. When the door is in a closed position with the undercut features engaged, the surface 223 at least partially overlaps the surface 221, thereby preventing the door from being pulled open (i.e., to the left in the above figure) and also preventing the latch member 703 from being rotated downward to clear the latching structure 220. In order to disengage the undercut features, surface 225 must travel beyond surface 222, at which point the latch member 703 can be rotated downward to clear the latching structure 220. In the exemplary embodiment, the door (including the latch member 703) can be rotated further inward (i.e., to the right in the above figure) so that the surface

225 travels beyond surface 222, at which point the latch member can be rotated downward to clear the latching structure 220 and allow the door to be opened. When the door is in a closed position with the undercut features engaged, inflation of the bladder produces a force pushing the door and the assembly away from one another (i.e., the latch member 703 is pulled to the left in the above figure) so that the surface 223 overlaps the surface 221 and the door cannot be pushed inward far enough to move surface 225 beyond surface 222. Therefore, with the bladder inflated, the door cannot be opened.

Applicant respectfully submits that Mena fails to disclose or otherwise suggest at least (1) an assembly including a latching structure having a first undercut feature; (2) a door including a latch member having a second undercut feature capable of being engaged by the first undercut feature; (3) the second undercut feature is required to move beyond the first undercut feature in order to open and close the door; and (4) a movable member to produce a force to prevent movement of the second undercut feature beyond the first undercut feature to lock the door in a closed position. The following drawings are representative of the door locking mechanism of Mena:



In the above figures, the frame component corresponds to the annular portion 25 of part 18 shown in FIG. 2 of Mena, while the door component corresponds too the annular rim 30 of hatch 14 shown in FIG. 2 of Mena; the door opens to the right in the above figures. In an unlocked state (shown on the left), the bladder is deflated and the door is able to open and close freely (see, for example, Mena, column 3, lines 17-23 regarding closing the door with the bladder deflated, as well as Figures 2 and 3). Neither the door nor the frame have undercut features that engage. Rather, portions of the door extend beyond corresponding portions of the frame so that the door can only swing to one side of the frame and therefore is not required to (and cannot) move beyond the frame in order to open and close (see, for example, Mena, column 2, lines 52-65). In a locked state (shown on the right), the bladder is inflated and fills the space between the door and the frame so as to prevent the door from opening (see, for example, Mena, column 3, lines 28-37). The door locking mechanism of Mena clearly does not involve engagement of two undercut features and applying a

force to maintain such engagement and/or to prevent movement of the second undercut feature of the door relative to the first undercut feature of the assembly.

Thus, Applicants respectfully submit that Mena does not teach or otherwise suggest a door locking mechanism of the type described and claimed in the subject patent application. Independent claims 1, 21, and 34 have been amended to recast the subject matter, and dependent claims 4-7, 18, 19, 30-32, 39, 40, 44, and 45 have been amended for consistency with the amended independent claims. New claim 47 has been added. Applicants respectfully submit that the claim amendments and the new claim are fully supported by the specification. It is believed that the claims have been broadened by the present amendment, although the nature of the limitations now differs from the nature of the limitations of the previous set of claims. Amendments of these claims should not be construed as being an amendment to avoid prior art or for other reasons relating to patentability.

2. In paragraph 4 of the Office action, the Examiner rejected claims 1, 21, and 34 under 35 U.S.C. 112, second paragraph, relating to the wording "capable of generating a force against at least one of the assembly and the door." Applicants have amended claims 1, 21, and 34 and removed the wording objected by the Examiner. However, Applicants wish to point out that the generation of a force is relative and therefore, from the perspective of the door, a bladder in the door may be considered to produce a force against the assembly, which, due to the laws of physics, produces an equal but opposite force on the door; similarly, from the perspective of the assembly, the bladder may be considered to produce a force against the door, which in turn produces an equal but opposite force on the assembly. Thus, Applicants respectfully submit that the wording "capable of

generating a force against at least one of the assembly and the door" was sufficiently clear.

3. In paragraph 4 of the Office action, the Examiner rejected claims 1 and 34 under 35 U.S.C. 112, second paragraph, relating to the relationship between the first and second engagement surfaces. Upon further review, Applicants recognize that the claim wording relating to engagement surfaces and overlap surfaces could be confusing. Therefore, the claims have been amended for clarity.

4. In paragraph 4 of the Office action, the Examiner rejected claims 3, 22, and 35 under 35 U.S.C. 112, second paragraph, relating to the wording "second engagement surface forms a projection for engaging the undercut. Claims 3, 22, and 35 have been canceled.

5. In paragraph 4 of the Office action, the Examiner rejected claims 13-17, 20, 27-29, 33, 41-43, and 46 under 35 U.S.C. 112, second paragraph, relating the interaction of the locking system with various other components.

Claims 13-17, 27-29, and 41-43 have been canceled, as the subject matter of these claims is generally unrelated to a door locking mechanism. Claims 20, 33, and 46, however, have been retained because, in embodiments of the invention described by those claims, a pump cassette may be considered an integral component of the door locking mechanism.

6. Claims 2, 3, 13-17, 22, 27-29, 35-38, and 41-43 have been canceled either because they are inconsistent with the independent claims as amended or

because they were directed to subject matter generally unrelated to door locking. Cancellation of these claims should not be construed as being an amendment to avoid prior art or for other reasons relating to patentability.

7. In paragraph 2 of the Office action, the Examiner objected to the specification at page 1, lines 11, 14, 17, 20, 23, 26, and 29.

Applicants have amended the specification to include the application numbers for the cross-referenced patent applications.

8. In paragraph 2 of the Office action, the Examiner objected to the specification at page 9, line 16.

Applicants have amended the specification to change "101" to "104."

9. In paragraph 2 of the Office action, the Examiner objected to the specification at page 9, line 17.

Applicants respectfully submit that "the door 402" is correct, and, therefore, Applicants did not implement the amendment suggested by the Examiner.

10. In paragraph 1 of the Office action, the Examiner objected to the drawings for failure to show details called out in claims 1, 19-21, 34, 45, and 46. However, 1, 19, 21, 34, and 45 have been amended to recast the subject matter. Applicants respectfully submit that the drawings sufficiently show all elements called out by the claims and that, therefore, no drawing changes are required. Specifically, FIG. 3C shows a bladder integral to the door. FIG. 1 shows the relationship between the door with integral bladder, the pump cassette, and the assembly

with bezel in an exemplary embodiment of the invention in which, when the door is closed/latched and the bladder inflated, the pump cassette is forced against the bezel and sufficient force is applied to maintain engagement of the undercut features so that the door remains latched.

11. All pending claims are believed to be in a form suitable for allowance. Therefore, the application is believed to be in a condition for allowance. The Applicant respectfully requests early allowance of the application. The Applicant requests that the Examiner contact the undersigned, Jeffrey T. Klayman, if it will assist further examination of this application.

12. The applicants do not believe any extension of time is required for timely consideration of this response. In the event that an extension has been overlooked, this conditional petition of extension is hereby submitted, and Applicants request that deposit account number 19-4972 be charged for any fees that may be required for the timely consideration of this application.

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Respectfully submitted,



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